

Notice of Allowability

Application No.

10/724,336

Examiner

Bernard Rojas

Applicant(s)

HOWARD ET AL.

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 06/26/2006.
2. ☒ The allowed claim(s) is/are 1-9, 11, 12, 14, 16-18, 21, 22, 38-41 and 44-48.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph Kendrick (Reg. #53,109) on Wednesday, July 5th, 2006.

The application has been amended as follows:

- Cancel Claims 19, 20, 2332, 42 and 43.
- Amend Claim 1 – change the status indicator from (Withdrawn) to (Currently Amended).
- Amend Claim 21 as follows – Replace “push buttons as claimed in claim 19” with “interfaces as claimed in claim 1”.
- Amend Claim 22 as follows – Replace “according to claim 21,” with “according to claim 1,” and “push buttons” with “interfaces”.

The following is an examiner's statement of reasons for allowance:

Claim 1, the prior art of record does not teach nor suggest, in the claimed combination, a man-machine interface as recited in the currently amended claim 1.

Claim 38, the prior art of record does not teach nor suggest, in the claimed combination, a position sensor comprising:

at least one planar substrate having formed thereon a magnetic field generator, the magnetic field generator comprising conductive tracks formed on at least two planes defined by the at least one planar substrate; wherein the magnetic field generator comprises a transmit aerial, the transmit aerial comprises a first excitation winding and a second excitation winding, the first excitation winding comprises at least one coil which is arranged about a first axis, which is in the plane of the planar substrate, such that in response to current flowing through the first excitation winding, a magnetic field is generated having a component along the measurement direction which varies in accordance with a first function, and the second excitation winding comprises a at least one coil which is arranged about a second axis, which is perpendicular to the plane of the planar substrate, such that in response to current flowing through the second excitation winding, a magnetic field is generated having a component along the measurement direction which varies in accordance with a second function which is different from the first function.

an intermediate coupling element operable to move relative to the at least one planar substrate along a measurement direction transverse to the planar substrate; and

a detector operable to detect the position of the intermediate coupling element in a magnetic field generated by the magnetic field generator, wherein the detector comprises a receive aerial, and wherein movement of the intermediate coupling element along the measurement direction varies the electromagnetic coupling between the transmit aerial and the receive aerial,

Claim 44, the prior art of record does not teach nor suggest, in the claimed combination, a position sensor comprising:

a planar substrate having a first planar surface and a second planar surface, the planar substrate having conductive windings formed thereon by conductive tracks on the first planar surface and the second planar surface interconnected by through-plated via-holes through the single planar substrate such that the conductive windings form a transmit aerial and a receive aerial, wherein the conductive windings include at least one coil which is arranged about a first axis which is in the plane of the planar substrate and at least one coil which is arranged about a second axis which is perpendicular to plane of the planar substrate; and

an intermediate coupling element operable to move relative to the at least one planar substrate along a measurement direction transverse to the planar substrate, wherein movement of the intermediate coupling element along the measurement direction varies the electromagnetic coupling between the transmit aerial and the receive aerial.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00), every other Friday off.

Art Unit: 2832

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Br


ELVIN ENAD
SUPERVISORY PATENT EXAMINER
7/7/06